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AUTHOR Ruscoe, Gordon C.; Miller, Stephen K.
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ABSTRACT

A school improvement effort that provided individually tailored reports on school effectiveness to 93 schools across the Commonwealth of Kentucky is analyzed. Dilemmas confronted by the individualized school reports explain why so little change was generated. The background for the research project from which the individual school reports were derived, is described, and perspectives on school effectiveness that guided the research are explained. The purpose and format of the individual school reports are described. The dilemmas encountered in attempting to encourage schools to use these reports hinged on practical/technical issues, managerial/administrative issues, and organizational/conceptual issues. A recounting of the failure can be organized around two major themes: (1) school improvement is not "natural" to schools; and (2) outcomes-based school evaluation may run counter to the current reward system in education. Inservice programs focusing on the purposes of these school reports might help to ensure that the reports are useful. A sample page from individual school reports is appended. (27 references) (SI)

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IMPLEMENTING A DATA-BASED SCHOOL EFFECTIVENESS IMPROVEMENT MODEL: DILEMMAS AND LESSONS LEARNED

Gordon C. Ruscoe

Stephen K. Miller

University of Louisville

U.S. DEPARTMENT OF EDUCATION
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INTRODUCTION

The following paper is a post hoc analysis of a school improvement effort which provided individually tailored reports on school effectiveness to 93 schools across the Commonwealth of Kentucky. The paper attempts to explore the reasons why these individualized school reports generated so little change by examining dilemmas confronted in this effort.

The paper first considers as background the research project from which the individual school reports were derived as well as a perspective on school effectiveness that guided the research. The paper then describes the purpose and format of the individual school reports. The dilemmas encountered in attempting to encourage schools to use these reports are examined in the third section; while lessons learned from this experience, as seen within the context of established patterns of school organization and their consequent effects on school improvement efforts, are examined in the fourth section. Finally, we consider implications for inservice education based on this post hoc analysis.

BACKGROUND

The Kentucky Career Ladder Pilot

In 1984 then Governor Martha Layne Collins and the Kentucky legislature proposed a series of statewide school reforms. Stymied by inadequate revenues to support these programs, most of the reforms were postponed until a Special Legislative Session in the summer of 1985 (Kentucky has a biennial legislature) in which tax increases and programmatic reform could be addressed simultaneously. One of the products of the regular 1984 session had been a special committee to develop a career ladder pilot project. The Career Ladder

Committee was to report to the governor and legislature by July 1, 1985, in time for the special session.

Based on that report (Kentucky Career Ladder Committee, 1985), the legislature passed a two-year, $5 million career ladder pilot to run during fiscal years 1986-1988. By January, 1986, the 22-member Career Ladder Commission had been appointed by the governor. But even before preliminary planning had been completed, the legislature effectively cut the pilot from two years to one by eliminating the $2.5 million for the second year of the program. This act also significantly reduced the scope of the pilot; first-year training and development costs, projected to be amortized over two years, had to be absorbed into the one-year budget. Coming without warning at the end of the regular 1986 session in the last week of March, the legislature in effect signaled the deathknell for the career ladder in Kentucky.

Had the pilot continued for two years, there would have been at least some possibility of looking at the longitudinal effects, albeit much compressed, of advancement on a career ladder. Admittedly, the defining characteristics of a career ladder had not been addressed (i.e., the effects of a career ladder are dependent upon its specific programmatic features such as mentoring, curricular decision making by master teachers, proportion of teachers allowed to advance to a given level, collaboration, and the extent to which the promotion criteria lead to professional growth in teachers who petition for advancement). Nonetheless, a two-year program would have provided at the least some preliminary information. With a one-year program, however, even any potential findings regarding a career ladder were lost.

Thus, the pilot project became, pure and simply, a research and development project on teacher evaluation. It fell to researchers at the University of Louisville and Western Kentucky University to salvage what was left of the

project. With university researchers taking over once the career ladder was doomed politically, program evaluation assumed a much greater role in the project (see Miller & Craig, 1988). This statement is crucial to understanding the context of this paper. Kentucky's career ladder pilot was never actually a test of a staged career ladder. Rather, it was a project to develop and test a set of teacher-evaluation instruments that could be used to determine which teachers should be advanced on a career ladder if the state decided to implement a statewide system.

The decision to develop an extensive data base on teacher attitudes about career ladders, teacher evaluation, and school effectiveness reflected this change in timeframe and leadership. (For a summary of the pilot project and technical data analyses, see Kentucky Career Ladder Commission [1987, 1988].)

School Effectiveness

The decision to include data on school effectiveness in the evaluation efforts was based primarily on a consideration of contextual factors. From an organizational theory perspective, schools are nested organizations: classrooms nested in schools and schools nested in districts. Such organization produces a reciprocal effect: the quality of individual teachers affects school level effectiveness and the normative and organizational factors at the school level in turn affect any single teacher's effectiveness. In order to analyze more fully the forces affecting teacher quality, information was needed on the differential effectiveness of the schools in which the career ladder pilot teachers worked.

This contextual argument was reinforced by the researchers' recognition of the potentially extraordinary data base that could be developed. At the time of the study, there was only one known data base that satisfied the require-

ments of a nested organization such that both teacher and school effectiveness could be assessed (see Teddlie, Kirby, & Stringfield, 1989).

The nested relationship of teachers and schools can be framed as follows. Teaching occurs in a larger school setting that is subject to many influences beyond the teacher's own control. The school's policies and practices, the way instruction is organized, and the beliefs and attitudes of other professionals all affect the learning climate of the school. Thus, the teacher's efforts are enhanced or impeded by the quality of the organizational climate, and each teacher in turn contributes to the overall school effectiveness by his or her actions and beliefs.

These are the very themes developed in the school effectiveness literature. It was this concordance of issues that led to the development of the school effectiveness data base upon which this research is based. A review of the major research questions in the field is clearly beyond this paper, but, in addition to Teddlie, Kirby, and Stringfield (1989), several pertinent studies may be noted here. Miller (1985) provides an historical perspective, Rosenholtz (1985) focuses on links to teachers, and Murphy (1988) reviews instructional leadership, all within the context of school effectiveness. Clark, Lotto, and Astuto (1984) and Miller, Sayre, and Tinsley (1984) look at parallels to school improvement and change, respectively. Brookover et al. (1982) describe applications of the research for practitioners, while Rutter (1983) focuses on research and policy issues. Stringfield and Teddlie (1988) provide a useful synthesis of progress in the field. A comprehensive listing of reviews and other major sources can be found in Miller and Sayre (1986). The most complete synthesis and analysis of the research yet produced is a monograph by Levine and Lezotte (1989). This list is far from complete, but it is safe to say

that the bibliographic sources included within these works would come as close to an exhaustive listing of the field as exists at this time.

The Kentucky Teacher Inventory (KTI)

In response in part to the assessment needs of the Career Ladder Pilot and in part to our own interests in school effectiveness, we developed the Kentucky Teacher Inventory (KTI).

Contents

The KTI was designed to assess the extent to which participation in the Career Ladder Pilot affected participants' attitudes toward evaluation, professional development, interaction with other teachers and administrators, and public support. In addition, the KTI examined teachers' attitudes toward a number of issues related to school effectiveness--the learning climate of the school, teachers' sense of efficacy, teachers' expectations about present and future student achievement, the mission of the school, and the organization of the school as it affects cooperation among teachers and between teachers and administrators.

Those sections of the KTI which dealt with learning climate were adopted from the work of Brookover, Beady, Flood, Schweitzer, & Wisenbaker (1979) and Brookover, McIntrye, Schweitzer, & Slawski (1984). Teacher efficacy and teacher cooperation questions were adapted from the work of Berman, McLaughlin, Bass, Pauly, & Zellman (1977) and Miskel, Bloom, and McDonald (1982), respectively. Other questions were developed by the research teams at the University of Louisville and Western Kentucky University.

The survey questions were pretested and revised in the early spring of 1987. The final version of the survey was a rather long 21 pages which required approximately 55 minutes to complete.

Sample

Participants and non-participants in the Career Ladder Pilot schools were the principal population for which the KTI was designed. The 47 Pilot schools, located in 12 primarily rural and small town districts scattered across the Commonwealth, included elementary, middle, and secondary schools, and one special-education center. The Pilot schools included 337 Pilot participants and 900 non-participants.

In addition, 47 "control" schools were selected. (One control school later dropped out of the sample.) The control schools were included in order to assess the extent to which Pilot participants might differ both from Pilot school non-participants and from other teachers in the state. Each Pilot school was matched to a control school which, as much as possible, was roughly comparable in terms of type of district, grade-level configuration, size, region of the state, type of community, and economy.

Administration

Career Ladder Pilot staff contacted each school to explain the nature of the research, to gain the approval of the school principal, and to schedule the survey administration. Each district superintendent was also contacted. Fifty data collectors, including personnel from the University of Louisville and the Career Ladder Pilot, were trained and assigned, wherever possible, to schools within or adjacent to their regions of the state. The data collectors were supplied, through regional distribution centers, with all the materials necessary for administration--survey booklets, precoded computer answer sheets, instructions, collection and mailing envelopes, and respondent voucher forms. (Each respondent not participating in the Pilot was paid $15 for his/her involvement.)

The survey was completed by 2440 teachers in the spring of 1987.

INDIVIDUAL SCHOOL REPORTS

A major part of the survey analysis focused on overall results and a comparison among Pilot participants, Pilot non-participants, and control school teachers. These results, reported elsewhere (Ruscoe, Miller, & Yelton, 1988), formed the basis for the development of reports to each of the participating schools.

The Purpose of the Reports

The primary purpose in developing reports for individual schools--in addition to the obvious one of providing feedback as a courtesy to the participating schools--was to devise a way to take a mass of information, largely numerical and statistical in nature, and translate it into a language which was both accessible to and meaningful for school personnel. The concern with the accessibility of language arose from the recognition that numerical and, particularly, statistical language is not only difficult for the lay reader but also arouses a number of negative reactions, particularly frustration and resentment.

Of more concern, however, was the meaningfulness of the language. The survey yielded a good deal of information pertinent to school effectiveness, information which might be used by individual schools to examine their own level of effectiveness and to identify those areas which impede school improvement.

The Format of the Reports

Given these concerns, the individual school reports (Miller, Ruscoe, & Yelton, 1988) were designed to accomplish several goals: 1) to present graphically how the school compares to other schools in the survey on a number of key measures; 2) to explicate how these measures are related to school effectiveness; 3) to explain how the results on these measures might be used

for school improvement; and 4) to provide references, source materials, and points of contact for additional information.

The graphic display of data

Each school received the average response for that school for each of 14 measures of school effectiveness along with an overall average and a graph illustrating where the school stood relative to the entire sample. (An explanation of the statistical procedures used in developing the graph was attached for those who wanted to know more about this topic.)

Each graph was color-coded to indicate measures on which the school was well above average (coded green), measures on which the school was well below average (coded red), and measures on which the school was more or less average (coded amber). (A sample page of graphs--not color-coded--is attached as Appendix I.)

The introduction to school effectiveness

A brief introduction to the effective schools literature was presented, including a three-page outline of the characteristics of effective schools (adapted from Brookover et al., 1982). The outline was broken into three areas:

--the ideology or beliefs schools hold regarding teaching, learning, and commitment to all students' mastery of a common curriculum;

--the organizational structure of schools, including the extent to which the curriculum and instruction are stratified or differentiated; and

--the instructional practices of schools, including time on task, instructional techniques, cooperative learning and academic team games, and the use of assessment data for program improvement.

In addition, an explanation was provided for each of the measures of school effectiveness reported graphically.

The primer on school improvement

The primer on school improvement focused on change and school improvement and suggested some initial strategies and resources which might be used. Concepts discussed, among others, included

--the importance of change in three areas: attitudes, organizational structures, and instructional practices;

--the need for both top-down support and bottom-up ownership;

--disaggregation of data--that is, breaking down the overall data for comparison among subgroups;

--long-term goal setting; and

--utilizing the school effectiveness graphs as a diagnostic instrument of strengths and weaknesses.

Additional information

Finally, information was provided for those who wanted to gain additional insights into and help with school improvement. This information included a bibliography and points of contact.

DILEMMAS

Although we exercised great care in planning these school reports, we were continually plagued with dilemmas. By a dilemma we mean being caught between two mutually attractive, but opposite, goals and being forced to balance these opposing forces: to move toward one goal is to move away from the other. In looking back over these dilemmas and our attempts to respond to them, we now realize that our frustrations arose not only from the sheer number of dilemmas but also from the nature of the dilemmas themselves. Two considerations are important here.

First, the skills necessary to resolve one dilemma were not necessarily the skills necessary to resolve another. The dilemmas we confronted were of

several rather distinct types. Some hinged on essentially practical/technical issues--for example, selecting the most appropriate language for the individual school reports. Others hinged on essentially managerial/administrative issues--for example, determining the most efficacious method for introducing these reports into the schools. Still others hinged on essentially organizational/conceptual issues--for example, coordinating school improvement efforts with existing reward structures.

Second, the resolution of a dilemma often led, not to closure, but to another dilemma. That is, dilemmas may be in the nature of infinite regress--the resolution of one brings in its wake yet another dilemma!

To illustrate these two points, we will consider three dilemmas which we confronted and our attempts to resolve them. We will then turn to the lessons we have learned from this effort at resolution.

Dilemma One: The Language of the Report

As was mentioned above, we confronted a major practical/technical dilemma from the moment we decided to prepare individual school reports. This dilemma hinged on the selection of the language used to report the findings. On the one hand, we wanted to present the findings in an intellectually honest fashion; on the other hand, we wanted to present the findings in a language readily accessible to school staffs.

That is, the findings were, we felt, important enough that they must not be "trivialized" by ignoring the research and statistical bases underlying them. But too heavy a reliance on research and statistical terminology would, we feared, make the report seem arcane and therefore unusable.

This dilemma was further complicated by a concern with the audience for whom the reports were designed. On the one hand, we wanted to design reports which had a certain degree of uniformity from school to school. That

is, certain generalizations emerged from the research which, we felt, applied to all the schools. In this sense, we were addressing an essentially "national" audience--at least in the sense that the 93 schools constituted a population. On the other hand, each school constituted a "local" audience with unique concerns and conditions. Over-emphasis on uniformity would run the risk of ignoring these special circumstances; but over-emphasis on uniqueness would run the opposite risk of downplaying what we felt were important generalizations.

A concern with the language of the reports and the audience to which each was addressed led to still another dilemma. Schools are often inundated with paperwork. A too lengthy report might easily be ignored, ending up in a file cabinet rather than on a faculty meeting agenda. There was thus a certain practical appeal in preparing a short, terse report. Economy of presentation, however, meant considerable lack of "texture." The language of mathematics (and by extension statistics) is a highly economical way to present findings, but it lacks the rich detail associated with more descriptive accounts of these findings. Again, a classical dilemma.

A graphic representation of the major findings, accompanied by additional information for those who wanted to pursue one or more of the topics further, thus seemed to be an effective compromise among competing goals. The graphics were readily accessible, they provided a comparison of local to "national" conditions, and they were economical. At the same time, the accompanying information provided a more technically sophisticated explanation of the graphs and of the underlying issues of school effectiveness, thereby providing at least some texture to the reports.

Dilemma Two: Change Agency and Collaboration

The <u>apparent</u> resolution of the language dilemma was, however, only the first of our problems. We believed that an interested individual, given the

format of the report and the additional information provided, could resolve his or her own dilemmas. As we soon realized, however, individuals who need the information the most may be precisely those who opt for the easy choice of not looking at the information provided. This problem is further complicated by the fact that the schools were to receive their reports, by mail, from an external source--and this external source was a university research staff.

The managerial/administrative dilemma posed here was obvious. On the one hand, in order for the reports to be ultimately useful, it was important that each school take "ownership" of its findings and initiate a self-generating program of change toward more effectiveness. The school staff itself must become the change agent.

On the other hand, without outside intervention, it was possible that any efforts toward change would languish. But the use of an external change agent necessitated a carefully developed plan for gaining "entry" into the school and establishing rapport--a very lengthy process for which the university research staff had neither the time nor the resources.

Under these circumstances the wisest course of action might have been to develop a collaborative program between the schools and the university. Such collaboration, however, presents yet another set of dilemmas. Schools are characterized by a daily round of decisions and actions that have direct, immediate consequences for school children. Universities, in contrast, are characterized by pondering and reflection. This does not mean that teachers never ponder and reflect or that professors never decide and act. But the relative importance of--and opportunity for--certain types of behavior are largely conditioned by the nature of the workplace. The slow rhythm of university life simply does not synchronize well with the fast beat of school life.

Moreover, school-university collaboration is always "fragile" (Schlechty & Whitford, 1988). Traditionally, school and university agendas have been kept distinct; where agenda items overlap, areas of cooperation often emerge, at least for short periods of time and for specific activities. But collaboration implies a merging of agendas, much more a symbiotic relationship where each partner gains by giving up some of its independence. Symbiosis is difficult to maintain in situations in which neither partner is accustomed to these arrangements.

Research carried out within such a symbiotic relationship is especially difficult. The evaluative and often judgmental conclusions of much traditional research threatens the fragile partnership. And the situation is made worse because the professor has typically been the "expert" while the teacher has typically been the "student." Under these circumstances, success requires unusual sensitivity on the part of the researcher. In fact, to maintain the collaboration, the researcher is often constrained in the questions asked and the analysis undertaken (Ruscoe, Whitford, Egginton, & Esselman, 1989).

Dilemma Three: School Organization

The dilemmas of language and change agency--real in themselves--became even more problematic because of the way in which schools are organized. That is, technical and managerial dilemmas are played out within school organizations, the understanding of which confront us with yet another series of dilemmas.

Organizations, including schools, operate in a state of "dynamic tension." Unfortunately, organizational theorists, in developing models that are essentially static, often fail to capture this dynamic reality--all life resonates with experiences and decisions that continually produce tension. This is not to say that everything is in flux. On the contrary, organizations exhibit behavioral

regularities and routines that are often highly stable. But such stability may be deceiving. Inevitable changes in the environment eventually require organizational response. This dynamic tension between stability and change--a classical example of an organizational/conceptual dilemma--is of course at the heart of our efforts to understand the lack of change occasioned by the school reports.

A particularly useful analysis of organizational dilemmas is that of Miles (1981). Miles documents nine dilemmas that all school systems confront. These include dilemmas such as diversity vs. uniformity, coordination vs. flexibility, centralization vs. shared influence, and, of course, change vs. stability. Miles argues that these dilemmas arise from the interaction of three pervasive forces: 1) the common properties of schooling, 2) the primary tasks that all organizations must accomplish in order to survive, and 3) the local variations unique for each setting.

That is, educational organizations have certain common, relatively stable, characteristics such as the requirement to socialize large numbers of youngsters, the exercise of local control within the context of state and federal rules, and compulsory attendance. In addition, educational organizations must accomplish certain primary tasks such as conducting core educational activities, managing and coordinating activities and workers, setting goals, and maintaining relationships with both the immediate and wider environment. And finally, educational organizations confront local variations in expectations and demands arising from differences in community socioeconomic contexts and values.

The dilemmas that Miles describes represent the dynamic tensions arising from the interaction of these three forces, tensions to which all schools must respond. In this context, the well-known phenomenon that change almost inevitably introduces conflict may be understood as the dawning recognition

that long dormant or finely balanced forces have been disturbed, necessitating a new and probably uncomfortable adjustment to the reactivated dilemma.

Because the forces leading to dilemmas contain both similar structures (i.e., common properties of schooling and core tasks of organizational survival) and idiosyncratic features (i.e., local contextual variation), responses to the dilemmas account for both the commonalities of schooling and the uniqueness of individual schools. As Goodlad (1984, p. 264) notes, "Schooling is everywhere very much the same, schools are very different" (emphasis in original).

In other words, the professionals and students who inhabit schools will respond to common environmental forces within a range of choices that describe behavior conditioned by "schooling," while the actors in a given building will balance the opposing goods in the nine dilemmas in a manner that is uniquely their own "school" response. In effect, Miles' schema accounts for the fact that schools "feel" like schools but develop a unique personality or climate of their own.

The Miles framework also captures the very real tensions of schools' daily existence and long-term accommodation to environmental change, tensions which help to explain the difficulties we have encountered in our project. In effect, despite our attempts to come to terms with the technical and managerial dilemmas occasioned by our efforts, we failed to take into account the even deeper dilemmas arising from the nature of school organization.

LESSONS LEARNED

A recounting of this failure can be organized around two major themes: 1) school improvement is not "natural" to schools and 2) outcomes-based school evaluation may run counter to the current reward system in education.

School Improvement Is Not "Natural" to Schools.

There is no existing structure for promoting school improvement. Indeed, the notion of school improvement as a normal and continuing process is perhaps alien to school culture. Rather, school improvement carries a negative connotation, suggesting as it does that there is something "wrong" that needs fixing. But if school improvement is not natural to schools, what is? The answer can be determined by examining what schools are actually responsible for.

The most pressing concern of educators is to guarantee the "well-being" of their students. This is largely a custodial task that often overwhelms all other purposes. Well-being in this context is generally interpreted both broadly and tacitly. "Broadly" here includes pupil control (civic conduct, social behavior), ancillary needs (lunch programs, drug or sex education), learning (curriculum and instruction), and legal responsibility (prevention of tort liability). "Tacitly" implies that these purposes are "understood" but often at an unconscious level. Seldom, except in esoteric scholarly essays, do communities make these purposes explicit, let alone devote public discussion to them.

Three points can be made regarding the dominance of ensuring students' well-being in schools. First, when teachers cannot "cut it" and the process of documenting incompetency is instituted, it is generally understood that the reason is inability to control students and maintain discipline. Teachers are <u>not</u> fired simply because their students are not learning.

Second, "emergencies" in schools have to do with accidents, fights, or a shortage of teachers (i.e., no substitute available). In the last case, the scramble to "cover classes" can entirely disrupt educational offerings and instructional priorities. In all three cases, the threat of legal action looms

large; the power of this force can be seen whenever any of the safeguards against incidents of liability break down.

Third, the amount of learning that occurs under the assumptions of the current industrial model of schooling is not something that the school controls. Rather, under this assumption, students take advantage of presumably equal educational opportunity to demonstrate their ability and effort, factors presumed to lie within the student.

In short, a concern with school improvement does not seem central, given the conditions under which schools operate. Instead, schools exhibit an overwhelming sense of immediacy in their daily operations, reflecting an emphasis upon maintaining control and preventing "incidents." Long-term goals for anything other than maintaining the ongoing, smooth running of the school may seem counter-productive to existence in such an environment.

Outcomes-Based School Evaluation May Run Counter to the Current Reward System in Education.

Despite our contention that school improvement is not "natural" to schools, it is clear that improvements do occur. This apparent contradiction may be partially understood by considering the nature of the current reward system in schools and how this system may or may not foster change.

Clearly, our attempt to introduce a data-based school effectiveness model into the schools did not succeed. Nor, for that matter, have countless other external initiatives which have sought to promote change through "knowledge utilization." As Sieber (1981) has argued, these initiatives have largely failed precisely because they have ignored the nature of school incentive systems. That is, they have not adequately taken into account the reasons why teachers and other professionals do or do not accept innovations.

Individual incentives

Our initial optimism about the usefulness of our individual school reports hinged on what, in retrospect, appears to be a faulty assumption. We began by assuming what Sieber (1981, p. 127) has termed the "Rational Man" image of school practitioners; practitioners are, according to this image, "...not only information processors but problem-solving addicts, and need only the wherewithal to gratify their habit." That is, the impetus for change arises from the felt need to solve problems. Thus, if our data-based improvement model indicated that a school had a problem which adversely affected school effectiveness, teachers should be eager to seek knowledge to rectify the situation.

This was a naive assumption. Indeed, as Sieber further argues, research on knowledge utilization indicates that the "educational worth" of an innovation simply does not correlate well with the adoption and implementation of the innovation. In fact, stressing educational worth may be a disincentive, suggesting as it does that what practitioners are currently doing is inferior and that only outside "experts" have the knowledge to "fix" things.

In contrast, research on knowledge utilization does indicate that some incentives for change do make a difference. Of primary concern is the "relevance" of the innovation. Relevance is here understood to be a highly complex concept which includes, but is not limited to, such considerations as applicability to a problem, suitability for the clientele, feasibility of implementation, and congruence with personal goals and values (Sieber, 1981, p. 128).

The key question is relevance for whom? Teachers and other practitioners who work in schools must feel that the proposed innovation offers something that is useful to them, something that they value. That, however, brings us full circle to another dilemma. If practitioners are likely to respond only to something that is highly relevant, then the proposed innovation must be

congruent with the workings of the current system. But if the current system is biased against using knowledge that may improve student outcomes and biased in favor of enhancing the school's ability to maintain smooth operations, then a serious impediment to change is confronted.

But change does occur. Despite a bias against outcomes-based improvement, practitioners (some much more so than others, of course) are interested in how their students learn. If improvements can be introduced in connection with other incentives--such as appeal to intellectual ideals, enhanced role efficiency, increased role autonomy, or improved peer relations--the odds against failure may be reduced considerably.

Institutional incentives

Apart from resistance to change at the individual level, there is another perspective. Organizations change because the wider environment changes and survival depends on keeping up with the times. In this sense it is appropriate to ask whether the current reward structure in education is changing. We maintain that it is.

The 1980s decade of reform can be seen as a period in which schools have been confronted by the demands arising from the changing environment of the post-industrial, electronic age of international markets and increased competition. These demands stem from the widespread belief that America's competitive edge can only be retained (or regained) through the production of better educated "knowledge workers." (The accuracy of this claim may be less important than the pervasiveness of the perception that it is true.)

The example of Kentucky perhaps makes this point. As a result of a suit challenging the constitutionality of the indisputably inequitable system of school finance in the state, the Kentucky Supreme Court declared not only the system of finance unconstitutional but the entire set of laws governing education. The

legislature has been directed to develop an entirely new system of education covering all aspects of schools.

In response to this challenge, the legislature has formed a Task Force on Education with separate committees on governance, finance, and curriculum. The Committee on Curriculum has issued a set of 12 guiding principles, representing in effect an outline of an outcomes-based model of schooling.

While there is no guarantee that these principles will actually be incorporated into a new educational system, the fact that they are even being considered as guidelines for deliberations about curricular reform is a radical break from the current system. In other words, while outcomes-based school evaluation may be contrary to the current reward system in education, there are indications that education may be forced, in the name of institutional survival, to restructure its reward structure to be more consistent with an outcomes-based evaluation system.

IMPLICATIONS FOR INSERVICE EDUCATION

Given the lessons we have learned in analyzing the dilemmas associated with providing individual school reports, it may now be useful to consider how we might have done things differently. In particular, it may be useful to consider how an inservice program focusing on the purposes of these school reports might have helped to ensure that the reports would be useful--and used.

Our analysis has suggested a number of questions which such an inservice program could address. But simply listing these questions is probably not very productive. What is needed, instead, is an appropriate context within which to address these questions. A particularly appropriate context would be one characterized by concern with "policy-relevant," "alterable" factors and

developed collaboratively by researchers and teachers. Some explication is necessary here.

"Policy" is a notoriously vague term. Too often people who talk about policy fail to communicate because they have their own conceptions of the term, almost invariably different from everyone else's. More important, talk about policy is sometimes irrelevant to the actual policy being considered and often concerned with factors which in fact cannot be changed.

We define policy simply as a plan of action developed to accomplish a given outcome. Under this definition, "policy-relevant" implies that the factors to be considered must be related to the outcomes under consideration, and "alterable" (Bloom, 1980) implies that the factors necessary to accomplish this outcome must be open to modification. Thus, a policy to promote school effectiveness must be concerned with those factors which have been found to be relevant to effectiveness--e.g., the learning climate of the school. And the factors must be open to change--e.g., the role of the principal as an instructional leader. Some factors simply are not alterable. We cannot, for example, change the family background of students or the economic base of the community.

The role of policy-relevant, alterable factors in promoting school effectiveness is clearly an important subject for an inservice program. What is perhaps not so clear but even more important is the need for collaboration between researchers and teachers in developing such a program.

If we were to attempt again the development of individual school reports, we would first work with teachers in addressing a number of questions, prior consideration of which is necessary to using these reports. These questions cluster around three broad issues: 1) the nature of educational success, 2) the

policy-relevant, alterable factors associated with educational success, and 3) the presentation and use of research findings regarding educational success.

The Nature of Educational Success

If individual school reports of the type we envision are to be useful, it is first necessary to consider those outcomes which constitute educational success. Indeed, without consideration of what counts as success, a data-based school-effectiveness improvement model is largely meaningless. It is thus important for teachers and researchers together to seek answers to the following types of questions:

1) What are the educational outcomes which the school hopes to achieve? That is, what counts as success, both cognitively and affectively?

2) How are these outcomes to be achieved? Answering this question obviously involves consideration of curriculum, teaching methods, and the organization of instruction.

3) How are these outcomes to be assessed? The reliance on standardized tests must be addressed here, but other notions of assessment--including mastery learning, formative evaluation, and performance-based criteria--must also be considered.

4) How can these outcomes be used as a basis for continual reassessment and restructuring of schools? Ultimately, school-effectiveness efforts must become an ongoing process.

Policy-Relevant, Alterable Factors Associated with Success

Once a better understanding of the nature of educational success has been achieved, it is appropriate to concentrate on those factors which are both alterable and relevant to promoting this success. Again, it is imperative that researchers and teachers work together in order to fully understand the subtleties of this topic.

1) How do schools begin to change the definition of outcomes so as to address policy-relevant, alterable factors such as time on task (Bloom, 1980)?

2) What are the beliefs and practices that are relevant to this change in definition? For example, what does it mean that all children can master a common curriculum?

3) What are the origins of our beliefs about ability and effort? For example, consider the difference in attributions for success and failure in students in Japan vs. the United States.

The Presentation and Use of Research Findings

The findings contained in our individual school reports focused on policy-relevant, alterable factors shown to be associated with effective schools. But the usefulness of these findings may still be lost if they are not presented in an accessible and acceptable manner. Although we have addressed this problem in some detail earlier, it is important here to consider the ways in which teachers and researchers working together can develop ways to make such findings more understandable.

1) How do we find the time and resources to permit teachers and researchers to meet? What is the role of the university, the state department of education, the school district, and the individual school in resolving issues of time and resources?

2) Is there any incentive for schools or school districts to be serious about considering and using research findings?

3) In what ways can research findings be presented which "make sense" to classroom teachers? It is important to ask teachers to describe the ways in which they react to research, the problems they have in reading research, and the kinds of presentations which work for them.

4) Under what conditions can research findings be presented most effectively? The presentation of research might be the focus of a faculty meeting or of a meeting of a small group of teachers.

* * * * *

These questions are merely representative of many that could be raised with respect to developing inservice programs focusing on school improvement. They need to be addressed if data-based school improvement efforts are to be successful. More important, they illustrate the basic thesis of this paper: attempting to introduce change into the schools raises a host of dilemmas. Even attempting to frame questions <u>about</u> change seems to be problematic. (Indeed, we have had more trouble framing these questions than writing any other part of the paper.) Simply put, educators cannot escape the dilemmas of change.

REFERENCES

Berman, P., McLaughlin, M. W., Bass, G., Pauly, E., & Zellman, G. (1977). Federal programs supporting educational change. Vol. 7, Factors affecting implementation and continuation. Santa Monica, CA: The Rand Corporation. (ERIC Document Reproduction Service No. 140 432)

Bloom, B. S. (1980). The new direction in educational research: Alterable variables. Phi Delta Kappan, 61, 382-385.

Brookover, W., Beady, C., Flood, P., Schweitzer, J., & Wisenbaker, J. (1979). School social systems and student achievement: Schools can make a difference. Brooklyn: J. F. Bergin Co., distributed by Praeger Publishers, New York.

Brookover, W. B., Beamer, L., Efthim, H., Hathaway, D., Lezotte, L., Miller, S., Passalacqua, J., & Tornatzky, L. (1982). Creating effective schools: An inservice program for enhancing school learning climate and achievement. Holmes Beach, Fla.: Learning Publications, Inc.

Brookover, W., McIntyre, L., Schweitzer, J., & Slawski, E. (1984). A School Learning Climate Assessment Instrument. Developed by Urban Affairs Programs, Michigan State University, East Lansing.

Clark, D. L., Lotto, L. S., & Astuto, T. A. (1984). Effective schools and school improvement: A comparative analysis of two lines of inquiry. Educational Administration Quarterly, 20(3), 41-68.

Goodlad, J. I. (1984). A place called school: Prospects for the future. New York: McGraw-Hill.

Kentucky Career Ladder Commission. (1987). Summary report on the 1986-87 pilot program. Frankfort: Kentucky Department of Education.

_____. (1988). Research report on the 1986-87 pilot program (J. Craig, S. Miller, R. Pankratz, & D. Redfield, Research Staff). Bowling Green, KY: Western Kentucky University.

Kentucky Career Ladder Committee. (1985). Kentucky career ladder plan for teachers. Frankfort: Kentucky Department of Education.

Levine, D. U., & Lezotte, L. W. (forthcoming). An interpretative review and analysis of research and practice dealing with unusually effective schools. National Center for Effective Schools Research and Development, University of Wisconsin Center for Education Research, Madison.

Miles, M. B. (1981). Mapping the common properties of schools. In R. Lehming & M. Kane (Eds.), Improving schools: Using what we know (pp. 42-114). Beverly Hills, CA: SAGE Publications.

Miller, S. K. (1985). Research on exemplary schools: An historical perspective. In G. R. Austin & H. Garber (Eds.), Research on exemplary schools (pp. 3-30). Orlando, Fla.: Academic Press.

Miller, S. K., & Craig, J. R. (1988, April). Organization and management of a statewide teacher evaluation system. Paper presented at the American Educational Research Association Annual Meeting, New Orleans.

Miller, S. K., Ruscoe, G. C., & Yelton, B. T. (1988). Kentucky Teacher Inventory: School effectiveness profile report. Unpublished evaluation report prepared for individual schools in Kentucky Teacher Inventory survey, University of Louisville.

Miller, S. K., & Sayre, K. A. (1986, April). Case studies of affluent effective schools. Paper presented at American Educational Research Association Annual Meeting, San Francisco.

Miller, S. K., Sayre, K. A., & Tinsley, D. S. (1984). Effective schools and educational change: Implications for teacher educators. The Teacher Educator, 19(4), 2-13.

Miskel, C., Bloom, S., & McDonald, D. (1982). Effects of structural coupling and expectancy climate on the effectiveness of learning strategies intervention: A pilot study to establish reliability and validity estimates. Research Report #57, Institute for Research in Learning Disabilities, University of Kansas, Lawrence.

Murphy, J. (1988). Methodological, measurement, and conceptual problems in the study of instructional leadership. Educational Evaluation and Policy Analysis, 10, 117-139.

Rosenholtz, S. J. (1985). Effective schools: Interpreting the evidence. American Journal of Education, 93, 352-388.

Ruscoe, G. C., Miller, S. K., & Yelton, B. T. (1988). The Kentucky Teacher Inventory Survey. In Kentucky Career Ladder Commission, Research report on the 1986-87 pilot program (pp. X-1 - X-16). Bowling Green, KY: Western Kentucky University.

Ruscoe, G. C., Whitford, B. L., Egginton, W. M., & Esselman, M. (1989, March). Quantitative and qualitative perspectives on teacher attitudes in professional development schools. Paper presented at the American Educational Research Association Annual Meeting, San Francisco.

Rutter, M. (1983). School effects on pupil progress: Research findings and policy implications. In L. S. Shulman & G. Sykes (Eds.), Handbook of teaching and policy (pp. 3-41). New York: Longman.

Schlechty, P. C., & Whitford, B. L. (1988). Shared problems and shared vision: Organic collaboration. In K. A. Sirotnik & J. E. Goodlad (Eds.), School-university partnerships in action: Concepts, cases, and concerns (pp. 191-204). New York: Teachers College Press.

Sieber, S. D. (1981). Knowledge utilization in public education: Incentives and disincentives. In R. Lehming & M. Kane (Eds.), Improving schools: Using what we know (pp. 115-167). Beverly Hills, CA: SAGE Publications.

Stringfield, S., & Teddlie, C. (1988). A time to summarize: The Louisiana School Effectiveness Study. Educational Leadership, 46(2), 43-49.

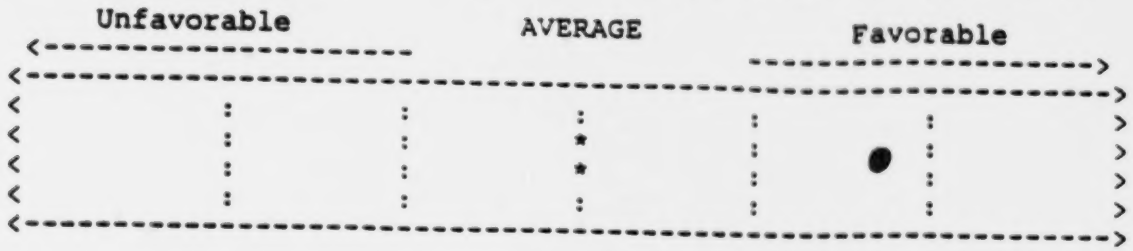
Teddlie, C., Kirby, P. C., & Stringfield, S. C. (1989, March). Classroom differences in effective and ineffective schools. Paper presented at the American Educational Research Association Annual Meeting, San Francisco.

APPENDIX

SAMPLE PAGE FROM INDIVIDUAL SCHOOL REPORTS

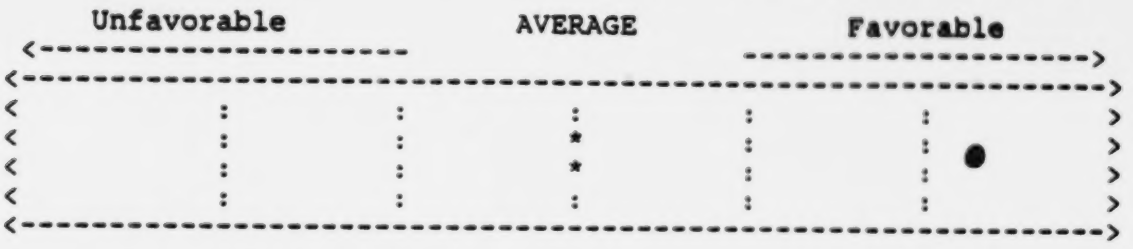
Teacher Efficacy: Teacher's belief that his/her teaching makes a difference. (For a more complete explanation of this variable, see page 16.)

ALL schools average: 2.745 YOUR school average: 2.015



Teacher Expectations, Present Orientation: Extent that teachers believe their students can achieve and expect their students to achieve now and/or in high school. (For a more complete explanation of this variable, see page 16.)

ALL schools average: 1.997 YOUR school average: 1.293



Teacher Expectations, Future Orientation: Extent that teachers believe their students can achieve and expect their students to achieve at college level. (For a more complete explanation of this variable, see page 16.)

ALL schools average: 3.300 YOUR school average: 1.668